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## NTE1519 Integrated Circuit 10-Step LED Driver Circuit for Linear Scale

**Features:**

- 10 LED Bar Display Driver
- Linear Scale Display
- Continuous 10 LED Display
- By Connecting in Series, Can Display More than 10 LEDs

**Absolute Maximum Ratings:** ( $T_A = +25^\circ\text{C}$  unless otherwise specified)

Supply Voltage, $V_{CC}$ .....	20V
Power Dissipation, $P_D$ .....	750mW
Derate Above $25^\circ\text{C}$ .....	5mW/ $^\circ\text{C}$
Operating Temperature Range, $T_{opr}$ .....	$-30^\circ$ to $+75^\circ\text{C}$
Storage Temperature Range, $T_{stg}$ .....	$-55^\circ$ to $+125^\circ\text{C}$

**Electrical Characteristics:** ( $T_A = +25^\circ\text{C}$ ,  $V_{CC} = 12\text{V}$  unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Supply Voltage	$V_{CC}$		6	12	15	V
Supply Current	$I_{CC(1)}$	$V_{refmax} = 4\text{V}$ , $V_{IN} = 0\text{V}$	–	15	20	mA
	$I_{CC(2)}$	$V_{refmax} = 4\text{V}$ , $V_{IN} = 4.1\text{V}$ , $I_O = 10\text{mA} \times 10$	–	150	160	mA
Internal Resistance	$R_{TOT}$		7	9	11	k $\Omega$
Input Bias Current	$I_{IN}$	$V_{IN} = \text{GND}$	–	–0.25	–1.0	$\mu\text{A}$
Input Voltage Range	$V_{IN}$		0	–	8	V
Output Offset Voltage	$V_{OFF}$	$V_{ref} = 4\text{V}$	–40	–	40	mV
Output Voltage, High Level	$V_{OH}$	$V_{ref} = 4\text{V}$ , $V_{IN} = \text{GND}$ , $R_L = 1.5\text{k}\Omega$	11.9	11.93	–	V
Output Voltage, Low Level	$V_{OL}$	$V_{ref} = 4\text{V}$ , $V_{IN} = 4.1\text{V}$ , $R_L = 1.5\text{k}\Omega$	–	0.6	1.0	V
Output Current	$I_O$	$V_{ref} = 4\text{V}$ , $V_{IN} = 4.1\text{V}$	–	7	12	mA
Leakage Current	$I_{IL}$	$V_{IN} = 4\text{V}$ , $V_{refmax} = 0\text{V}$ , $V_{refmin} = 0\text{V}$	–	–	15	$\mu\text{A}$

### Pin Connection Diagram

